

AIS

Aquatic Invasive Species

WATER HYACINTH ANCHORED & FLOATING



Anchored Water hyacinth
Eichhornia azurea

Photo by: Kurt Stüber, Max-Planck Institute for Plant breeding Research



Floating Water hyacinth
Eichhornia crassipes

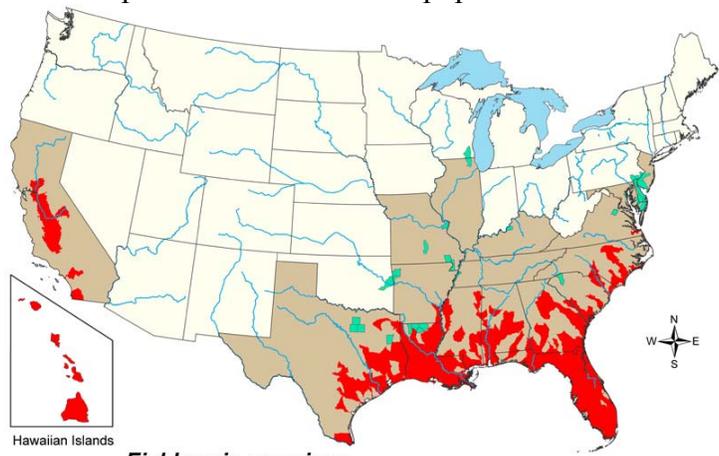
Photo by: Josh Hillman, FloridaNature.org

COMMON NAMES: anchored water hyacinth, common water hyacinth, floating water hyacinth

SCIENTIFIC NAMES: *Eichhornia azurea*, *Eichhornia crassipes*

DISTRIBUTION: Water hyacinth is found in southeastern United States as well as California, Hawaii, and the Virgin Islands. These plants have established populations in 13 states and 53 countries.

Indiana: Floating water hyacinth has been found occasionally in Indiana waters. In monitoring for this plant, areas where it has been found have not shown growth in subsequent seasons. This is an indication that someone released the plant in the summer, it multiplied through the summer, and finally died out in the winter.



Hawaiian Islands

Eichhornia crassipes

■ range established
■ wait or nonpermanent populations

USGS
October 2003

0 125 250 500 750 1,000 Kilometers

DESCRIPTION: Both of these distinct species have round, glossy green leaves, which are held upright and can reach up to 10 inches in diameter. Anchored and floating varieties of this plant have large blue/purple or lilac flowers with a yellow marking or spot.

LIFE CYCLE BIOLOGY: These perennial plants reproduce by daughter plants, which form on rhizomes and produce dense plant beds. One study showed two plants produced 1,200 daughter plants in four months. These plants can also reproduce by seeds. A single plant can produce as many as 5,000 seeds. A population of water hyacinth can double in as little as six days. A healthy acre of floating water hyacinths can weigh up to 200 tons. Individual plants can break off the mat and can be dispersed by wind and water currents. The seeds can also be eaten and transported by waterfowl.

PATHWAYS/HISTORY: Found globally in the tropics and subtropics, *Eichhornia crassipes* is thought to have been introduced into the United States during the 1884 Cotton States Exposition in New Orleans. Water hyacinth is today sold by aquarium and pond supply dealers as ornamental vegetation for private ponds.

DISPERSAL/SPREAD: Brought from Central and South America for exposition in the late 1800s, visitors took these plants home and added them to private backyard ponds. By 1990, water hyacinths escaped this cultivation and become a serious pest in coastal states.

RISKS/IMPACTS: Water hyacinth mats clog waterways, making boating, fishing, swimming, and almost all other water activities, impossible. These plants cover the water's surface in a mat-like sheet and restrict sunlight that underwater native plants need for growth. Eventually this underwater vegetation dies and decays depleting dissolved oxygen in the water, which is needed for underwater life. As well as depleting oxygen, choking waterways and stifling recreation, water hyacinth provides prime habitat for disease vectors such as mosquitoes and parasitic flatworms.

MANAGEMENT/PREVENTION: Anchored water hyacinth is listed as federally noxious weed, which prevents the importation or sale of this plant. Some states list floating water hyacinth as a noxious weed although Indiana does not. Mechanical methods such as harvesting and chopping water hyacinth can be effective in controlling the spread and growth of this species. Aquatic herbicides can also control water hyacinth however this can be very expensive. Biological control measures have also been introduced in some areas, such as the water hyacinth weevil, water hyacinth moth, and native moths which all feed off of the leaves of this aquatic plant.



With the absence of established populations in the Midwest, it appears as though these plants die in the winter and do not return in subsequent years. As popular as floating water hyacinth is in water gardens, if it were suitable to survive in Indiana's climate, it would likely have invaded the state already. We will continue to watch for water hyacinth and will chemically control it if it appears to be overwintering in areas.

Like all invasive species, the key to preventing their spread is knowledge! You can help by practicing a few good techniques for stopping the spread of aquatic invasive plants.

- ✓ Rinse any mud and/or debris from equipment and wading gear and drain any water from boats before leaving a launch area.
- ✓ Remove all plant fragments from the boat, propeller, and boat trailer. The transportation of plant material on boats, trailers, and in livewells is the main introduction route to new lakes and rivers.
- ✓ Do not release aquarium or water garden plants into the wild, rather seal them in a plastic bag and dispose in the trash.
- ✓ Consider using plants native to Indiana in aquariums and water gardens.

REFERENCES:

Water Hyacinth Fact Sheet. www.sgnis.org

Harmful aquatic Hitchhikers: Plants: Water Hyacinth.
www.protectyourwaters.net/hitchhikers/plants_water_hyacinth.php

EICHHORNIA CRASSIPES. Non-Native Invasive Aquatic Plants in the United States.
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<http://plants.ifas.ufl.edu/seagrant/eiccra2.html#hphow>

Anchored water hyacinth. <http://www.invasive.org/browse/subject.cfm?sub=4677>

Common water hyacinth. <http://www.invasive.org/browse/subject.cfm?sub=3020>